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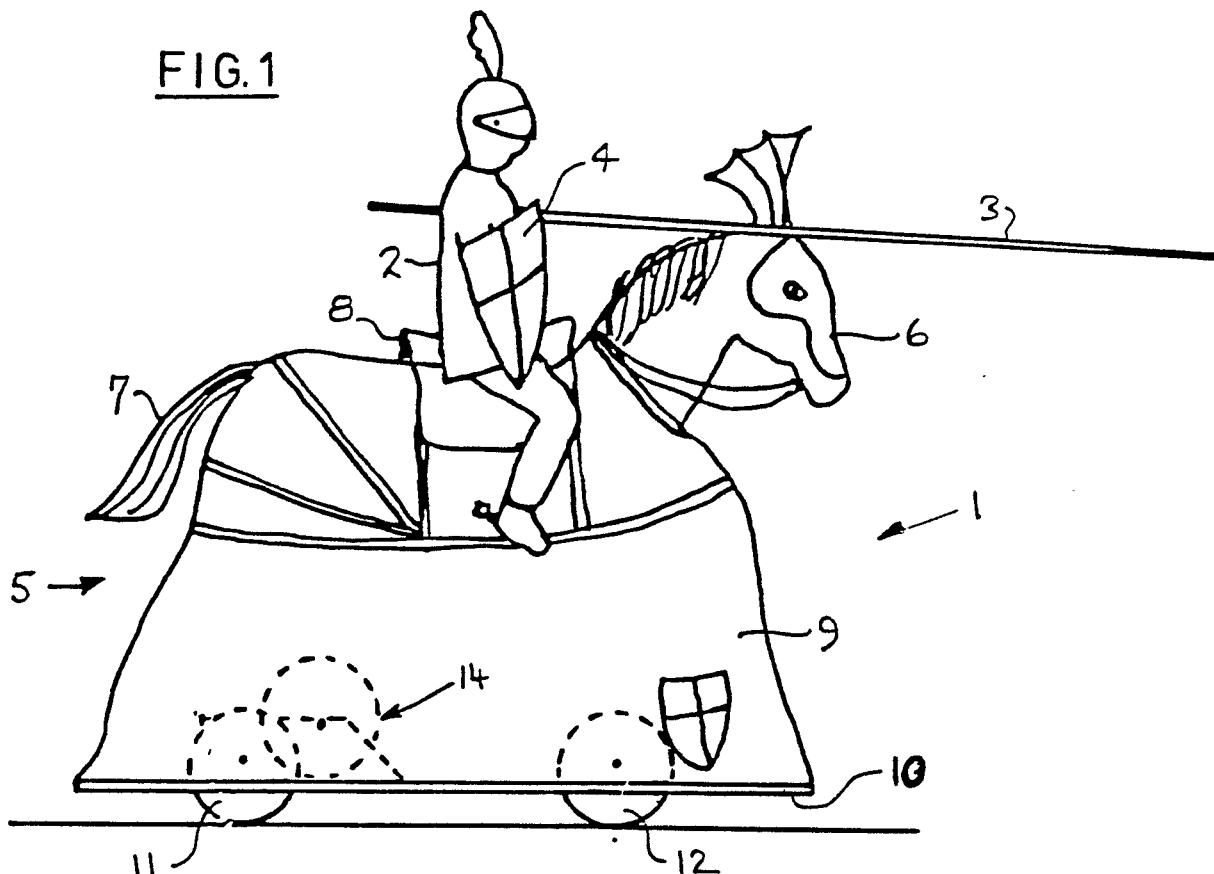
(58) Field of search

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(54) **A self-propelled wheeled toy**

(57) A self-propelled wheeled toy comprises a base (10) and, mounted thereon, ground wheels (11, 12), a pull back and go spring drive mechanism (14) and a body part (5). The body part (5) has an animal-like form and, with the base (10) obscures from view the spring drive mechanism (14) and the majority of each ground wheel.



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FIG. 1

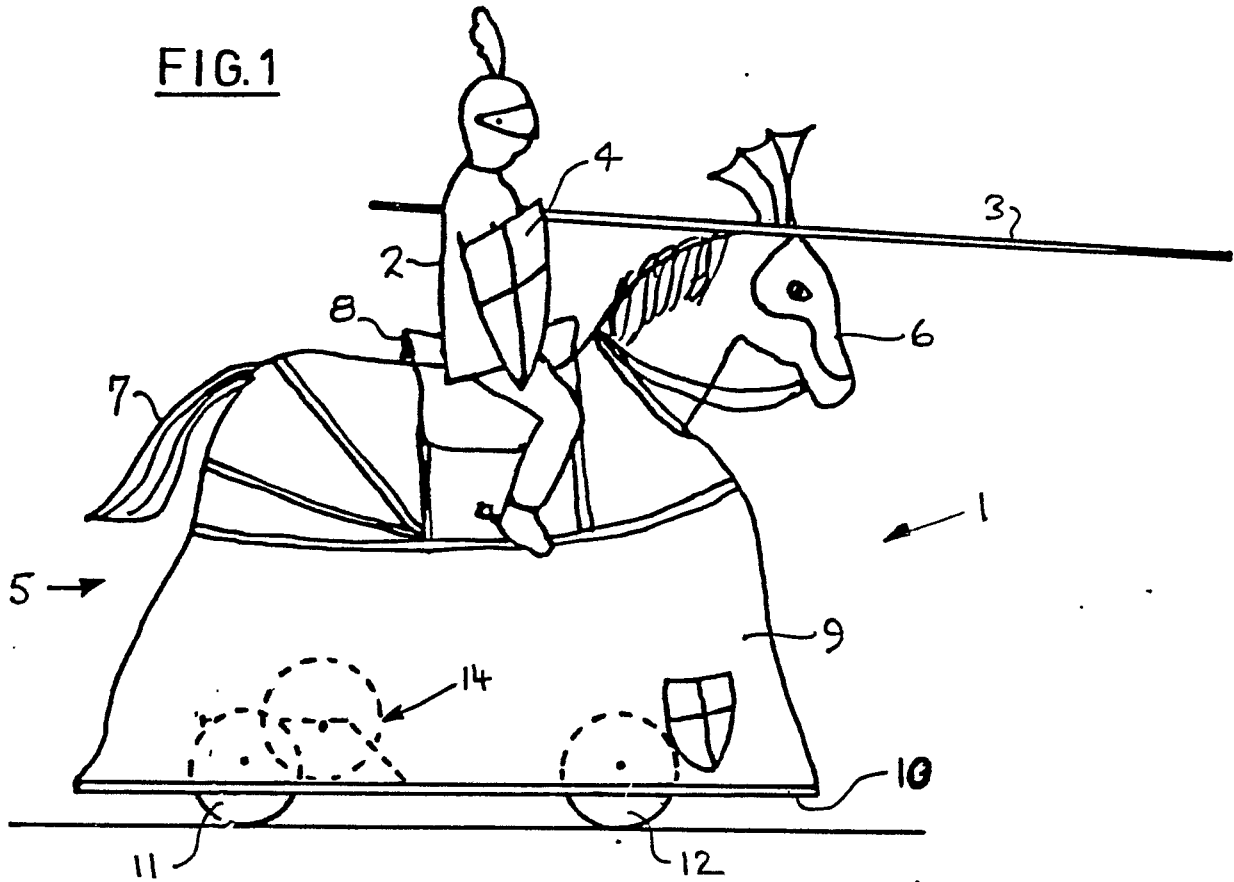
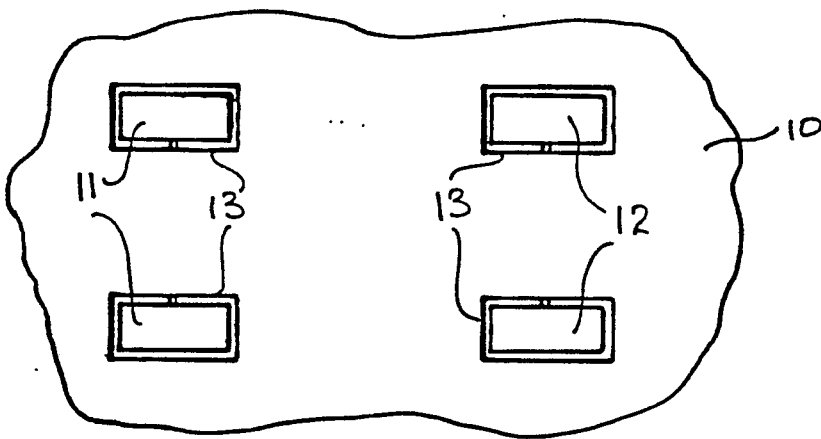


FIG. 2



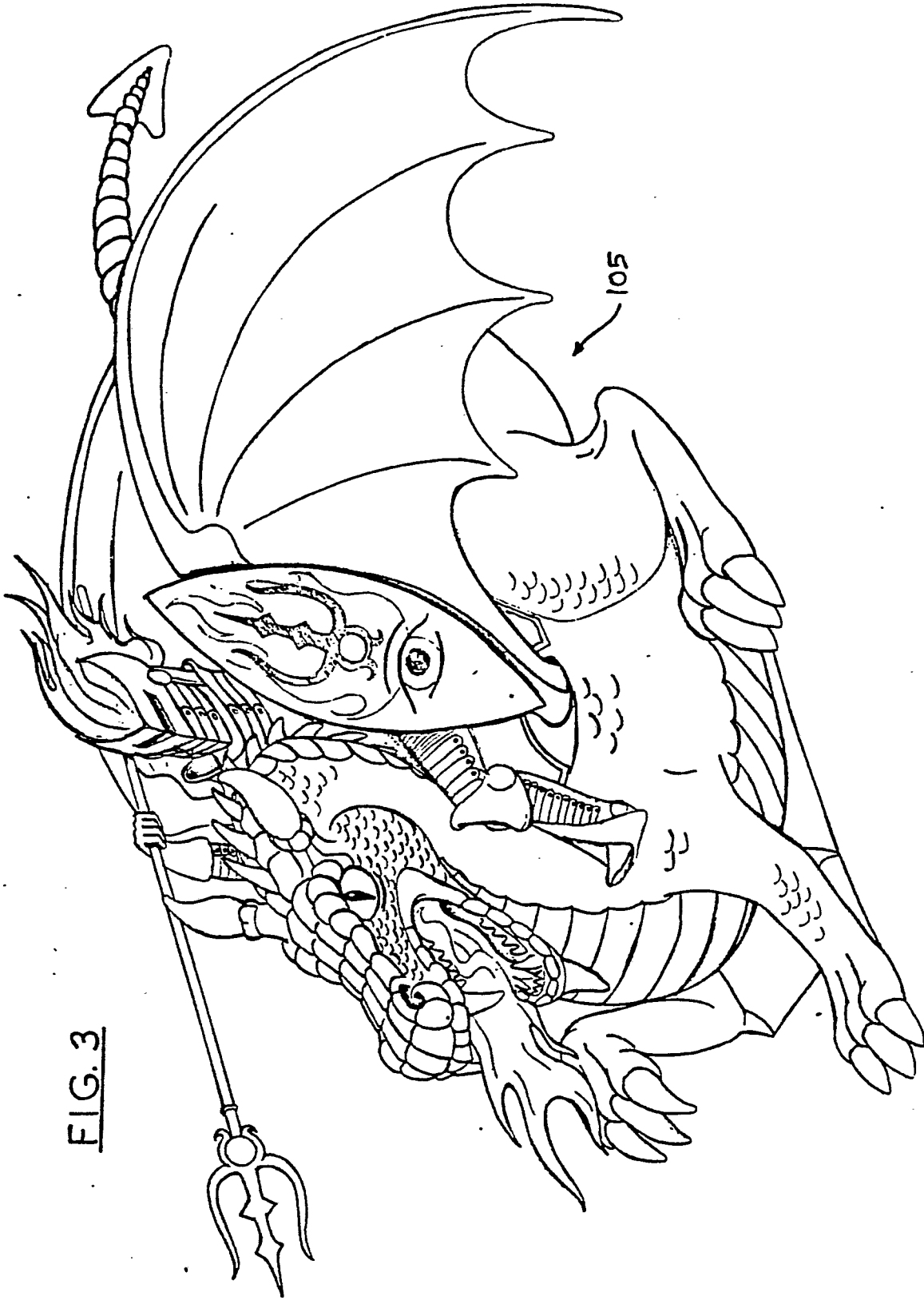


FIG. 3

A SELF-PROPELLED WHEELED TOY

This invention relates to a self-propelled wheeled toy of the kind comprising a base having a bottom surface and, mounted on the base, ground wheels, a pull back and go
5 spring drive mechanism for driving at least one of the ground wheels and a body part, the ground wheels having axes of rotation positioned above the bottom surface so that, at any one time, a major part of each ground wheel is positioned above the bottom surface and a minor part of
10 each ground wheel is positioned below the bottom surface.

A known self-propelled wheeled toy of the kind referred to is in the form of a toy car, the body part defining the main outline of the toy car. However in general the ground wheels and the drive mechanism are not
15 completely enclosed by the body part.

The provision of ground wheels on toy horses is well known in the prior art to enable children to push the toy horses along the ground. However with such a known toy horse the wheels are generally easily visible when the toy
20 horse is in its normal standing position distracting from the reality of the toy.

The present invention seeks to provide a self-propelled wheeled toy of animal or animal-like form having at least one ground wheel driven by a pull back and go spring
25 drive mechanism, the ground wheels and drive mechanism being substantially obscured from view when the ground wheels engage the ground.

According to the present invention a self-propelled wheeled toy of the kind referred to is characterised in
30 that the body part is of animal, or animal-like, form and in that the body part fits over the base and, with the latter, substantially obscures from view the spring drive

mechanism and the major part of each wheel positioned above the bottom surface of the base.

In a toy according to the invention there is minimal clearance between the preferably flat bottom surface of the base and a flat ground surface on which the ground wheels rest. Thus it is difficult to see the ground wheels which are obscured by the body part and base.

Conveniently the body part is in the form of a knight's horse having a rigid skirt, representing a jousting coat for the horse, extending to the base. Alternatively, however, the body part may be of other animal-like, or fictional animal-like form, e.g. in the form of a dragon. A knight may be detachably or fixedly mounted on the body part.

Preferably the body part is moulded from plastics material, e.g. thermoplastics material, either in a unitary or in two or more moulded sections. In addition one or more moulding/overmoulding operations may be employed in creating the toy.

An embodiment of the invention will now be described, by way of example, with reference to the accompanying drawing, in which

Figure 1 is a side view of a self-propelled wheeled toy according to the invention,

Figure 2 is a view from below of the toy shown in Figure 1, and

Figure 3 is a perspective view of an alternative design of shell for a toy according to the invention.

Figures 1 and 2 show a toy horse 1 on which is mounted an armoured knight 2 made of plastics material and carrying

a lance 3 and shield 4. The horse 1 comprises a body part of one or more sections of moulded plastics material depicting the head 6 and tail 7 of the horse 1, a saddle 8 on the horse and a jousting coat 9 in the form of a rigid skirt, and a base part 10 also of moulded plastics material. The base part 10 has rear and front wheels 11 and 12, respectively, mounted on its upper surface and which partly project through rectangular openings 13 formed in the base part. The axes of rotation of these wheels 11, 12 are positioned above the substantially flat bottom surface of the base part 10. A "pull back and go" type spring drive mechanism 14 - e.g. a "Darda" (registered trade mark) motor employing a spring drive typically of the type shown in GB-A-1525970 - is also mounted on the upper surface of the base part 10 for providing drive to the rear wheels 11. The bottom of the skirt or coat 9 may be permanently or detachably fixed to the periphery of the base part 10.

In use the horse 1 is pulled back to wind up the spring drive mechanism 14 and then released. The wheels 11 and 12 are almost entirely obscured from view by the surrounding skirt or coat 9 enhancing the realism of the toy as the horse moves forward under the power of the spring drive mechanism 14.

In the embodiment shown the model is a 1:32 scale model, the base part 10 having a length of about 10 cm. Although the 1:32 scale is preferred, other sizes may be employed. The knight 2 is conveniently detachably mounted on the horse 1, although in other embodiments the knight could form part of the main shell 5.

As shown in Figures 1 and 2 the body part 5 is of shell-like form and the coat 9 is positioned on top of the base part 10. However the body part may extend down to, or below, the level of the bottom surface of the base part.

In Figure 3 there is shown an alternative dragon-like

design of shell part 105 for incorporation in a toy according to the invention. The shell part 105 is intended to be mounted on a base part (not shown) similar to the base part 10. The dragon-like shell part 105 has a low slung, 5 ground-hugging body which is able to obscure the ground wheels of the base part and eliminates the need to provide a jousting skirt for that purpose. In other embodiments (not shown) of the invention, the shell part may be of different animal-like, or fictional animal-like, form, 10 preferably having a rider, e.g. a knight, mounted, e.g. detachably, thereon.

CLAIMS

1. A self-propelled wheeled toy comprising a base having a bottom surface and, mounted on the base, ground wheels, a pull back and go spring drive mechanism for driving at least one of the ground wheels and a body part, the ground wheels having axes of rotation positioned above the bottom surface so that, at any one time, a major part of each ground wheel is positioned above the bottom surface and a minor part of each ground wheel is positioned below the bottom surface, characterised in that the body part is of animal, or animal-like, form and in that the body part fits over the base and, with the latter, substantially obscures from view the spring drive mechanism and the major part of each wheel positioned above the bottom surface of the base.

2. A toy according to claim 1, in which the body part is in the form of a knight's horse having a rigid skirt, representing a jousting coat for the horse, extending to the said base.

3. A toy according to claim 1 or 2, in which the base has openings therein through which said ground wheels partly project.

4. A toy according to claim 1, 2 or 3, in which the bottom of the body part is fixed to the base.

5. A toy according to any one of the preceding claims, in which the said bottom surface of the base is substantially flat.

6. A self-propelled wheeled toy constructed and arranged substantially as herein described with reference to, and as illustrated in, Figures 1 and 2 or Figures 1 and 2 as modified by Figure 3.